

-16-

CLAIMS:

1. A drill guide assembly for determining the axis for drilling a bore in a generally dome-shaped bone to receive a component of an orthopaedic joint prosthesis, which  
5 comprises:

a. a drill guide sleeve,  
b. a carriage in which the drill guide sleeve is mounted towards a first end thereof so that the angular orientation of the drill guide sleeve relative to the carriage can be adjusted about at least one axis, the carriage including at least one  
10 threaded angle-adjustment screw which extends between the carriage and the drill guide sleeve by which the angular orientation of the drill guide sleeve can be adjusted, and

c. a platform which can be fastened to the bone, which includes at least three feet depending from the platform to engage the surface of the bone with the  
15 bone extending towards the platform into the space between the feet, in which the carriage is mounted relative to the platform so that the drill guide sleeve extends away from the bone, the platform including at least one threaded translation-adjustment screw which extends between the platform and the carriage by which the translational position of the carriage in the plane of the platform, defined by  
20 the axis of the translation-adjustment screw, can be adjusted.

2. A drill guide assembly as claimed in claim 1, in which the carriage includes only one angle-adjustment screw.

25 3. A drill guide assembly as claimed in claim 1, in which the platform includes only one translation-adjustment screw.

4. A drill guide assembly as claimed in claims 2 and 3, in which the axis about which the drill guide sleeve rotates and the axis of the translation-adjustment screw are  
30 orthogonal relative to each other.

-17-

5. A drill guide assembly as claimed in claim 1, in which the carriage includes two angle-adjustment screws.

6. A drill guide assembly as claimed in claim 1, in which the platform includes two translation-adjustment screws.

7. A drill guide assembly as claimed in claims 5 or claim 6 in which the adjustment screws are arranged such that their axes are orthogonal relative to each other.

8. A drill guide assembly as claimed in claim 1, in which the angle-adjustment screw acts on the drill guide sleeve closely adjacent to the point at which the drill guide sleeve is mounted in the carriage.

9. A drill guide assembly as claimed in claim 1, which includes a nut connected to the carriage, wherein the angle-adjustment screw extends through the nut, the nut having a thread which mates with the thread on the screw.

10. A drill guide assembly as claimed in claim 9, in which the angle-adjustment screw is fastened at a first end to the drill guide sleeve so that translational movement of the angle-adjustment screw relative to the drill guide sleeve is inhibited.

11. A drill guide assembly as claimed in claim 9, in which the nut is rotatably connected to the carriage so that the nut is capable of rotating about an axis which passes through and is perpendicular to the axis of the angle-adjustment screw extending through the nut.

12. A drill guide assembly as claimed in claim 1, which includes a nut connected to the platform, wherein the translation-adjustment screw extends through the nut, the nut having a thread which mates with the screw.

-18-

13. A drill guide assembly as claimed in claim 12, in which translation-adjustment screw is fastened at a first end to the carriage so that the translational movement of the translation-adjustment screw relative to the carriage is inhibited.

5 14. A drill guide assembly as claimed in claim 12, in which movement between the nut and the platform is inhibited.

10 15. A drill guide assembly as claimed in claim 1, which includes an alignment stylus connected to the drill guide to move with the drill guide relative to platform, the stylus including a first limb which is directed towards the bone, to facilitate assessment of the alignment of the drill guide sleeve relative to anatomical features of the bone.

16. A drill guide assembly as claimed in claim 15, in which the stylus can be moved rotatably around the drill guide sleeve.

15 17. A drill guide assembly as claimed in claim 15, in which the stylus includes a second limb extending from the first limb in a direction generally towards the axis of the drill guide sleeve.

20 18. A drill guide assembly as claimed in claim 17, in which the length of at least one of the first and second limbs of the stylus is adjustable.